

SYSTEM AND METHOD FOR TRANSMISSION OF VIDEO SIGNALS USING  
MULTIPLE CHANNELS

ABSTRACT OF THE DISCLOSURE

5        In a communication network (20), a video encoder/decoder  
system (114) and an encoding method (150) facilitate  
transmission of video frames (116) over multiple low-data-rate  
channels (46). Frame data (204) is generated for each video  
frame (116). The frame data (204) is transformed (172) to  
10    obtain transform coefficients (212), which are assembled (174)  
into quadtrees (216) and separately coded (178). In addition,  
motion vectors (166) are split into coding blocks (188) and  
separately coded (190). The quadtrees (126) and the motion  
vectors (166) are independently distributed among the multiple  
15    channels (46) for transmission. A decoding method (360)  
facilitates error resilient reception of transform coefficient  
packets (222) and motion vector packets (244) so that lost  
transform coefficients (374) and/or lost motion vectors (384)  
can be estimated at a receiving video encoder/decoder system  
20    (114) to reconstruct a received video frames 144.